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REMARKS

The Examiner has rejected Claims 1-7, 9-16 and 18-34 under 35 U.S.C. 102(e) as being anticipated by Foss et al. (U.S. Patent No. 6,119,231). Applicant respectfully disagrees with such rejection, especially in view of the amendments made hereinabove to each of the independent claims. Specifically, applicant has amended independent Claims 1 and 10 to substantially incorporate the subject matter of dependent Claims 4-5 and 13-14 respectively.

With respect independent Claims 1 and 10, the Examiner has relied on the following excerpts from Foss to make a prior art showing of applicant's claimed "comparison module checking the contents of each address field against the blocking rules to screen infected messages and identify clean messages" (see this or similar, but not identical, language in each of the foregoing claims).

"The device first checks whether the e-mail message is being sent through a known protocol in step 320. The particular mail server protected by the mail guard device will recognize data messages sent only through particular protocols." (Col. 4, lines 30-34-emphasis added)

"All e-mail messages must be formatted according to a certain mail or data transfer protocol. Because the port address is contained in the beginning of the packet, the protocol can be determined by the scanner soon after it starts scanning the packet. For example, if it detects a port address of 25, the Simple Mail Transfer Protocol (SMTP) port in the TCP/IP protocol, it will expect the message to be an e-mail message formatted according to SMTP. In another example, if it detects a port address of 21 it will expect the data to be transferred under another protocol referred to as the File Transfer Protocol (FTP)." (Col. 5, lines 17-26-emphasis added)

Applicant respectfully asserts that the above excerpts from Foss simply teach determining whether the protocol of the message is known, and formatting the messages according to a certain protocol (see emphasized excerpt above). Clearly, checking the protocol of a message does not meet applicant's specifically claimed "checking the contents of each address field against the blocking rules" (emphasis added) since a

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protocol is merely the format of the message and does not include the actual content of the message header or body. Further, Foss also does not teach that such checking is done in order "to screen infected messages and identify clean messages" (emphasis added). Foss's disclosure merely makes sure the protocol of the message is formatted in a recognized protocol before sending the message on to the recipient.

In addition, the Examiner has relied on the following excerpt from Foss to make a prior art showing of applicant's claimed "intermediate message queue staging each such clean message pending further processing" (see this or similar, but not identical, language in each of the foregoing claims).

"Following the normal flow of operations, if the e-mail corresponds to a known protocol, the system will invoke a rule set containing rules based on the protocol in step 406. One of the primary functions of the rule set is to inform the system during the scanning which characters, symbols (and certain sequences thereof), and commands, are not allowed in an e-mail."  
(Col. 5, lines 35-41)

Applicant respectfully asserts that simply nowhere in the above excerpt from Foss, nor the entire Foss reference, is there any disclosure of a queue, let alone a queue in the context of applicant's claims. Specifically, Foss merely teaches that once an e-mail is determined to have a known protocol, the system scans the e-mail for certain characters, symbols and commands that are not allowed, and does not teach that the e-mail is placed in a queue before being scanned for the certain characters. Thus, Foss clearly does not meet applicant's specific claim language.

With respect to independent Claims 20 and 27, the Examiner has relied on the following excerpts from Foss to make a prior art showing of applicant's claimed "comparison module comparing the tokens to characteristics indicative of at least one of a computer virus and malware to identify screened incoming message packets, and forwarding each screened incoming message packet" (see this or similar, but not identical, language in each of the foregoing claims).

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"The device first checks whether the e-mail message is being sent through a known protocol in step 320. The particular mail server protected by the mail guard device will recognize data messages sent only through particular protocols." (Col. 4, lines 30-34-emphasis added)

"All e-mail messages must be formatted according to a certain mail or data transfer protocol. Because the port address is contained in the beginning of the packet, the protocol can be determined by the scanner soon after it starts scanning the packet. For example, if it detects a port address of 25, the Simple Mail Transfer Protocol (SMTP) port in the TCP/IP protocol, it will expect the message to be an e-mail message formatted according to SMTP. In another example, if it detects a port address of 21 it will expect the data to be transferred under another protocol referred to as the File Transfer Protocol (FTP)." (Col. 5, lines 17-26-emphasis added)

Applicant respectfully asserts that the above excerpts from Foss merely teach checking the protocol of a message, which again, is simply the format of the message, and not comparing tokens representing field values of the header of the message to characteristics indicative of at least one of a computer virus and malware. Simply nowhere in Foss is there any mention of scanning tokens representing header field values in a message to determine if the message contains a computer virus or malware, which is clear by Foss's teaching that only the protocol is checked.

The Examiner is reminded that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, the identical invention must be shown in as complete detail as contained in the claim. *Richardson v. Suzuki Motor Co.* 868 F.2d 1226, 1236, 9USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

This criterion has simply not been met by the Foss reference, for the reasons noted above. Nevertheless, despite such paramount deficiencies and in the spirit of expediting the prosecution of the present application, applicant has substantially incorporated the subject matter of dependent Claims 4-5 and 13-14 into independent

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Claims 1 and 10 respectively, and dependent Claims 21 and 28 into independent Claims 20 and 27 respectively.

With respect to dependent Claim 4-5 et al., presently incorporated into independent Claims 1 and 10, the Examiner has relied on the following excerpts from Foss to make a prior art showing of applicant's claimed "antivirus scanner scanning each message in the intermediate message queue for at least one of a computer virus, malware and bad content" (Claim 4 et al.) and "event handler performing each scanning operation as an event responsive to each such clean message staged in the intermediate message queue" (Claim 5 et al.) (see this or similar, but not identical, language in each of the foregoing claims).

"In step 408 the system continues scanning the e-mail data packet after having established a rule set. In a preferred embodiment, the scanning function is implemented, in part, by using a searching algorithm. The portions of data processed by the search algorithm are determined according to the protocol. The algorithm may begin processing the data byte by byte and may increase to word by word and to long-word by long-word. The algorithm is typically more efficient if the compare function component in the algorithm can load and compare comparatively large portions of data at a time. Thus, depending on how the data is parsable, the scanning operation may become more efficient as more data is read or once a particular command or string is detected." (Col. 5, lines 52-64)

"The present invention employs various process steps involving data stored in computer systems. These steps are those requiring physical manipulation of physical quantities. Usually, though not necessarily, these quantities take the form of electrical or magnetic signals capable of being stored, transferred, combined, compared, and otherwise manipulated. It is sometimes convenient, principally for reasons of common usage, to refer to these signals as bits, values, elements, variables, characters, data structures, or the like." (Col. 7, lines 58-67)

Applicant respectfully asserts that the above excerpts from Foss completely fail to disclose any sort of "antivirus scanner," as claimed by applicant. In fact, the above scanning taught by Foss relates to scanning for certain characters, symbols and commands (see Col. 5, lines 35-51), and not to antivirus scanning. In addition, Foss also fails to teach that the antivirus scanning is performed in response to the header of the

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message being determined to be clean based on a comparison with blocking rules (see independent claims from which the foregoing claims depend).

With respect to dependent Claim 21 et al., presently incorporated into independent Claims 20 and 27, the Examiner has relied on the following excerpt from Foss to make a prior art showing of applicant's claimed "antivirus scanner scanning the message content of the body of each screened incoming message packet for at least one of a computer virus and malware to identify uninfected screened incoming message packets, and forwarding each uninfected screened incoming message packet" (see this or similar, but not identical, language in the forgoing claims).

"In step 410, the system determines whether the e-mail contains an acceptable or OK command. If the e-mail contains an OK command the system continues with steps following 420 where the e-mail message-data (i.e. the actual message portion of the e-mail) is checked. If the e-mail does not contain an OK command, the system continues with step 412." (Col. 6, lines 1-7)

Applicant respectfully asserts that the above excerpt from Foss merely teaches checking whether the commands in an e-mail are allowed. Clearly this does not rise to the level of applicant's claim language, since applicant specifically claims scanning the message for at least one of "a computer virus and malware." Nowhere in Foss is there even any mention of scanning for a computer virus or malware in the manner claimed by applicant.

Applicant further notes that the prior art is also deficient with respect to the dependent claims. For example, with respect to dependent Claim 23, the Examiner has relied on Foss's teaching of sending a rejection message or similar notification to the source of the message if the protocol of the message is determined to be unknown. Applicant respectfully asserts that simply sending back a message to the sender of a message does not meet applicant's claim language since applicant specifically claims "clos[ing] the open connection to the sending client." Thus, in Foss, the sender could keep sending messages, whereas applicant claims that the connection is closed.

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Still yet, applicant brings to the Examiner's attention the subject matter of new Claims 35-40 below, which are added for full consideration:

"wherein the antivirus scanner scans content of a body of the message and any attachments" (see Claim 35);

"wherein the intermediate message queue is maintained at a constant size" (see Claim 36);

"wherein the constant size is determined according to a progress of the antivirus scanner in order to prevent the intermediate message queue from becoming overloaded with the messages awaiting scanning" (see Claim 37);

"wherein the infected messages are blocked from entering the intermediate message queue immediately after the comparison is made between the blocking rules and the contents of at least one of the address fields" (see Claim 38);

"wherein the infected messages are discarded immediately after being blocked from entering the intermediate message queue" (see Claim 39); and

"wherein a connection to a sender of the incoming message is closed if the message is blocked" (see Claim 40).

A notice of allowance or a specific prior art showing of such claim features, in combination with the remaining claim elements, is respectfully requested.

Thus, all of the independent claims are deemed allowable. Moreover, the remaining dependent claims are further deemed allowable, in view of their dependence on such independent claims.

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In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 505-5100. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-1351 (Order No. NAI1P390/01.087.02).

Respectfully submitted,  
Zilka-Kotab, PC.

Kevin J. Zilka  
Registration No. 41,429

P.O. Box 721120  
San Jose, CA 95172-1120  
408-505-5100